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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Thomas B Haverstock
Haverstock & Owens LLP
162 NORTH WOLFE ROAD
SUNNYVALE, CA 94086

EXAMINER

BRINEY III, WALTER F

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/515,589

Applicant(s)

STELMAN, BRUCE W.

Examiner

Walter F Briney III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 24-27 is/are rejected.
- 7) ☒ Claim(s) 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 7-17, 20, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deutsch et al. (US Patent 5,577,115) in view of Ryu (US Patent 5,400,397).**

Claim 17 is limited to *a method of interfacing a telephony appliance to a telephone switching system*. Deutsch discloses an interface recognition unit that determines whether a telephone network is either ISDN (i.e. *digital*) or *analog* (abstract) (this is analogous to the limitation of *identifying a first communication protocol utilized by the telephone switching system*). Deutsch discloses an interface that configures itself according to the detected network, therefore, the interface's adaptation serves to *determine* if terminal devices (i.e. *telephony appliances*) will operate using digital or analog signals (i.e. *communicate voice as digital or analog signals*) (column 2, line 46-column 3, line 19). Deutsch discloses configuring an interface using an ISDN circuit (i.e. *activating a first signal path through an apparatus...*) when it is determined that the network is an ISDN network (i.e. *when the telephone system communicates voice signals as digital samples*) (column 3, line 56-column 4, line 12). Deutsch discloses, as part of his ISDN circuit (i.e. *the first signal path includes...*), a CODEC that converts digital ISDN signals to analog (i.e. *a converter for converting the digital samples into an*

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analog signal) (column 4, lines 13-44). Deutsch discloses configuring an interface using an analog circuit (i.e. *activating a second signal path ...*) when it is determined that the network is an analog network (i.e. *when the telephone system communicates voice signals in an analog format*) (column 2, line 47-column 3, line 19). The analog signal path includes analog circuitry (i.e. *the second signal path includes analog signal processing circuits*) (column 4, lines 45-65). Deutsch provides a flexible arrangement for the connection of an analog phone to either ISDN or POTS networks, however, Deutsch does not allow for other types of phone terminals to be connected, such as 2-wire, 4-wire, and digital. Therefore, Deutsch anticipates all limitations of the claim with the exception of *identifying a second communication protocol utilized by the telephony appliance*. Ryu teaches that an automatic branch exchange (i.e. CPE) benefits from universal extension ports that allow 2-wire, 4-wire, and digital phone terminals to be connected to them. It allows greater user flexibility and the invention of Ryu also allows a doubling of CPE numbers (column 1, lines 5-68). It would have been obvious to one of ordinary skill in the art at the time of the invention to allow multiple types of phone terminals to be connected and identified by a branch exchange as taught by Ryu for the purpose of providing extended operability to the invention of Deutsch.

The new limitations corresponding to *wherein the first communication protocol and the second communication protocol must first be identified before the telephony appliance and the telephone switching system being communicating with one another* are discussed in detail in the proceeding section. Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claims 7, 8, 11, and 12 are essentially the same as claim 17 and are rejected for the same reasons.

Claim 20 is limited to *the method according to claim 17*, as covered by Deutsch in view of Ryu. Deutsch discloses measuring the power on each line (i.e. *measuring a first voltage supplied by the telephone switching system...*) with a power test circuit and microprocessor (i.e. *to a resistive load*) (figure 2, elements 41 and 42) (column 5, line 9-column 6, line 10). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 23 is limited to *the method according to claim 17*, as covered by Deutsch in view of Ryu. Deutsch discloses identifying the network the customer premises equipment is connected to (i.e. *identifying a communication protocol utilized by the telephone switching system*) (abstract). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 24 is limited to *the method according to claim 23*, as covered by Deutsch in view of Ryu. Deutsch discloses a switch hook relay that detects when a device is on/off-hook (i.e. *detecting an on-hook/off-hook condition of the telephony appliance*) (column 4, lines 47-52). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 14 is essentially the same as claim 24 and is rejected for the same reasons.

Claim 25 is limited to *the method according to claim 24*, as covered by Deutsch in view of Ryu. Deutsch discloses providing hook status signals to the network (i.e.

providing an indication of the on-hook/off-hook condition of the telephony appliance to the telephone switching system...) when in the analog mode (i.e. *in accordance with the identified protocol*) (column 4, lines 47-52). Providing hook status signals to a network includes a transition from *an on-hook condition to an off-hook condition*. Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 15 is essentially the same as claim 25 and is rejected for the same reasons.

Claim 26 is limited to *the method according to claim 24*, as covered by Deutsch in view of Ryu. Deutsch discloses providing hook status signals to the network (i.e. *providing an indication of the on-hook/off-hook condition of the telephony appliance to the telephone switching system...*) when in the analog mode (i.e. *in accordance with the identified protocol*) (column 4, lines 47-52). Providing hook status signals to a network includes a transition from *an off-hook condition to an on-hook condition*. Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 16 is essentially the same as claim 26 and is rejected for the same reasons.

Claim 10 is rejected for the same reasons applied in both claims 25 and 26 together.

Claim 9 is limited to *the method according to claim 7*, as covered by Deutsch in view of Ryu. Deutsch discloses connecting terminal devices to a telephone network, thus providing communication for all telephone signals (i.e. *wherein the signal path is utilized for communicating voice and control signals between the telephony appliance*

and the telephone switching system) (column 2, line 47-column 3, line 19). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

Claim 13 is essentially the same as claim 9 and is rejected for the same reasons.

Claim 27 is essentially the same as claim 17, as covered by Deutsch in view of Ryu, with the further limitation of *translating a communication according to the communication protocol of the switching system and further according to the communication protocol of the telephony appliance*. Deutsch discloses a CODEC (figure 1b, element 20) that *translates* digital ISDN signals (i.e. *according translating a communication according to the protocol of the switching system...*) into analog signals used by terminal devices (i.e. *and the telephony appliance*) (figure 1b, elements 22 and 27) (column 4, lines 13-44). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

The new limitations corresponding to *wherein the first communication protocol and the second communication protocol must first be identified before the telephony appliance and the telephone switching system being communicating with one another* are discussed in detail in the proceeding section. Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim.

- 2. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deutsch in view of Ryu and further in view of Gutzmer (US Patent 5,555,300).**

Claim 19 is limited to *the method according to claim 17*, as covered by Deutsch in view of Ryu. Deutsch discloses detecting an analog network and connecting the appropriate power lines to support the analog network (i.e. *adapting the second signal*

path according to requirements of the telephone switching system). Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim with the exception of *adjusting an amplification level*. Gutzmer teaches to adapt the microphone amplification level of a telephone based on the detection of a telephone dial tone (i.e. *according to a level of a dial tone provided by the telephone switching system*) thus providing a voice signal with maximum signal strength and minimum distortion (column 2, lines 14-39). It would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the amplification level of the handset microphone of Deutsch in view of Ryu by the method as taught by Gutzmer for providing a voice signal with maximum strength and minimum distortion.

Claim 18 is rejected for the same reasons as claim 19.

Allowable Subject Matter

3. **Claims 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

Claim 21 is limited to *the method according to claim 20*, as covered by Deutsch in view of Ryu. As explained in claim 20, Deutsch discloses measuring the power on each line with a power test circuit and microprocessor, but does not vary the power test conditions to include unloaded conditions. Therefore, Deutsch in view of Ryu makes obvious all limitations of the claim with the exception of *measuring a second voltage supplied by the telephone switching system under unloaded conditions*. Therefore, claim 20 is allowable.

Claim 22 is allowable because it is dependent on claim 21.

Response to Arguments

4. **Applicant's arguments with respect to claim 7-22 and 24-27, filed 09 August 2004, have been fully considered but they are not persuasive.**

With respect to independent claims 7, 11, 17, and 27, the applicant has amended the claims to include the new limitation, *"wherein the first communication protocol and the second communication protocol must first be identified before the telephony appliance and the telephone switching system begin communicating with one another.* It has been submitted that this new limitation renders the claims allowable over Deutsch in view of Ryu; the examiner respectfully disagrees. See page 11 of the current response.

In particular, the applicant alleges that Deutsch does not teach interfacing the telephone switching system to a telephony appliance which uses different initialization signals than that of the telephone switching system. See page 9. However, initialization signals are not mentioned in the claims, only a first and second communication protocol. Deutsch discloses determining the network type, as seen in figure 3, and modifies the current path based on the detected network type so as to be compatible with the analog handset (22). Clearly, the embodiment of figure 3 occurs before communication is started as shown in method steps (204-209). It has been acknowledged that Deutsch alone does not disclose adapting the CPE communication path based on the type of handset used, a deficiency overcome by the teachings of Ryu.

Ryu teaches a private automatic branch exchange that corresponds to the CPE of Deutsch. Each extension port depicted in figures 1 and 2 is adapted for the use of three-types of handsets, as indicated in the Abstract. The three types are, two-wire analog, two-wire digital, and four-wire analog. The operation, depicted in figures 3-5, indicates that upon receiving an event (S001), a check is made to determine what type of terminal is connected. In the event of a received call, processing proceeds to (S005), where it is determined if one or two extensions exist. In the event that only one exists, processing proceeds to (S100) of figure 4. This is the case where a four-wire phone is used, and the analog/digital key telephone set interface (108) is adapted to service said four-wire phone. This is clearly an alternative to if a call is received to the digital phone, where the same interface (108) would be adapted for digital service. In addition, the interfaces must inherently be setup before processing. Thus, it is believed that Ryu meets the applicant's issues as seen on page 10 of the current response.

The new limitations are believed to still be comprehended by the combination of Deutsch in view of Ryu.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter F Briney III whose telephone number is 703-305-0347. The examiner can normally be reached on M-F 8am - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WFB
11/23/04

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PRIMARY EXAMINER~~


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PRIMARY EXAMINER